

REMARKS

Claims 1-11 are pending in this application. Claims 1 and 10 are independent claims.

Reconsideration in view of the following remarks is respectfully solicited.

The Claims Define Patentable Subject Matter

The final Office Action rejects:

(1) claims 1 and 7-9 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,597,807 to Watkins et al. (hereafter Watkins);

(2) claims 2-4 and 6 are rejected under 35 U.S.C. §103(a) as being unpatentable over Watkins in view of U.S. Patent No. 6,396,946 to Sogawa (hereafter Sogawa);

(3) claim 5 is rejected under 35 U.S.C. §103(a) as being unpatentable over Watkins in view Sogawa and further in view of U.S. Patent No. 6,640,130 to Freeman et al. (hereafter Freeman); and

(4) claims 10 and 11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Watkins in view of U.S. Patent No. 5,129,010 to Higuchi et al. (hereafter Higuchi).

These rejections are respectfully traversed.

Rejections under 35 U.S.C. §102(e)

Applicant respectfully submits that Watkins fails to teach or suggest each and every feature as set forth in the claimed invention, as set forth in claim 1.

For example, claim 1 recites, *inter alia*, that "the three-dimensional thermal image comprises a plurality of color tones having a predetermined correspondence with a luminance

represented by the data output from the right infrared camera and the data output by the left infrared camera."

An advantage of this feature is that temperature can be inferred by the user, based on the predetermined color. (See for example, page 12, line 18 to page 13, line 4 of the present specification).

In contrast with the present invention, Watkins merely describes that in the case of a target detection, green is chosen to color code the spectral sensor imagery channel that has the lowest spatial frequency components of the target highlighted (i.e. the largest patches on the target distinguishable). Red is used to color code the spectral sensor imagery channel that has the next lowest spatial frequency components of the target highlighted; and blue is used to color code the last spectral sensor imagery channel (emphasis added - see Watkins, column 5, lines 9-16).

In addition, Watkins goes on to describe that the animal navigation hazard 40 has a green body 42 from the green channel sensor that highlights the lowest spatial frequency of the animal (i.e. the largest part of the animal). The head 44 is red, representing the next lowest spatial frequency component with the next and overlap of green and red that shows up as yellow. Finally, the legs 46 and tail 48 (the smaller parts of the animal) are blue, representing the highest spatial frequency components (see column 6, lines 19-25).

Thus, in Watkins, it is clear that the colors are merely assigned to the target depending upon the spatial frequency (i.e. size or position) of the objects in each of the ranges.

However, Watkins fails to teach or suggest that the colors have a predetermined correspondence with luminance.

Applicant respectfully submits that it appears that the Examiner may be confusing the term "spatial frequency" with that of "luminance". Specifically, the Examiner asserts that "the color tones of the overlay from the left and right output of the cameras is adjusted according to the intensity of an animals color, such as a black sheep.." (see page 2, lines 8-10 of the present Office Action).

However, Watkins fails to describe anywhere that the color tones are adjusted to the intensity of the color of the animal. Instead, Watkins merely describes assigning the color tones according to spatial frequencies, i.e. position or size. Applicant respectfully submits that Watkins' "spatial frequency" is clearly not the same as the claimed "intensity of color". Indeed, applicant respectfully points out that if we were to follow the example of the Examiner given in Watkins, then according to the Examiner's assertions, the black sheep would have different intensities of color of its body, head and legs! Applicant respectfully submits that this is clearly inappropriate.

Additionally, applicant respectfully points out that spatial frequency is described as follows according to the following web page:

<http://tigger.uic.edu/~hilbert/Glossary.html#S>

*Spatial frequency: A measure of how rapidly a property changes in space. A commonly used form of visual stimulus consists of vertical bars where the lightness varies according to a sinusoidal function. In this sample case the spatial frequency of the stimulus is just the frequency of the sinusoid used to generate the pattern. In general, stimuli with fine detail including sharp edges have high spatial frequency while those*

where the stimulus properties change more slowly in space have low spatial frequency (emphasis added).

AS such, using the above-noted web site as a guide, it is clear that the legs of the black sheep would have a high spatial frequency (i.e. fine detail with sharp edges) and the body of the black sheep will have a low spatial frequency (i.e. not sharply defined and will move slower than legs). Thus, applicant respectfully submits that it is clear that Watkins has nothing to do with assigning color tones according to the intensity of an animal's color, such as a black sheep.

Furthermore, applicant respectfully points out that modifying Watkins to meet the claimed feature would render the device of Watkins inoperable. For example, as described in column 5, lines 1-2 of Watkins, the selection of colors is important, and selecting the colors based on the luminance (i.e. brightness) rather than spatial frequency (i.e. position or size as discussed above) would prevent the device of Watkins from operating correctly. Watkins is used to identify targets or hazards, therefore, there would be little or no use of knowing which parts of the particular hazard are most luminous (or bright), indicating the temperature of the object.

Therefore, applicant respectfully submits that the other cited references cannot be properly combined with Watkins to produce the claimed invention.

Finally, it should be noted that Watkins makes no mention of being able to infer the temperature of an object by a user, based on the predetermined color.

According to MPEP §2131, "a claim is anticipated only if each and every element as set forth in the claim is found,

either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claims." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913 (Fed. Cir. 1989). The elements must be arranged as required by the claims, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 ( Fed. Cir. 1990).

Applicant respectfully submits that the final Office Action has failed to establish the required *prima facie* case of anticipation because the cited reference, Watkins, fails to teach or suggest each and every feature as set forth in the claimed invention.

Applicant respectfully submits that independent claim 1 is allowable over Watkins for at least the reasons noted above.

As for each of the dependent claims not particularly discussed above, these claims are also allowable for at least the reasons set forth above regarding their corresponding independent claims, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 1 and 7-9 under 35 U.S.C. §102(e) is respectfully solicited.

#### Rejections under 35 U.S.C. §103(a)

Applicant respectfully submits that the claimed invention as set forth in independent claim 10 is distinguishable from the combination of Watkins and Higuchi for at least the following reasons:

In response to our previous remarks, the Examiner responds that Higuchi discloses that it is known in systems for measuring 3D shapes and dimensions to use a slit device and an infrared directive device for directing infrared toward a subject through the slit device in order to detect the subject shape and characteristics. (see final Office Action, page 3). As such, the Examiner alleges that his reasoning is not based on improper hindsight.

Applicant respectfully disagrees with the Examiner. Applicant believes that the Examiner is overreaching in his interpretation of Watkins and is merely relying on improper hindsight.

For example, as argued previously, applicant submits that a close review of Watkins col. 2, lines 13-43 merely reveals that a method for processing signals from a plurality of sensors include assigning a Red-Green-Blue (RGB) color code to the left and right signals. However, Watkins fails to disclose an *image synthesis processing device* for synthesizing the data output from the sensors.

Applicant respectfully reminds the Examiner that in U.S. Patent law, an apparatus must be distinguished from the prior art in terms of structure rather than function, as in accordance with M.P.E.P. §2114. In other words, an apparatus claim covers what a device *is*, not what a device does. *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). Applicant respectfully submits that the Examiner is ignoring what Watkins device *is*.

Accordingly, applicant submits that the prior art reference, Watkins, fails to disclose or suggest the claimed structure of an image synthesis processing device, as set forth

in the claimed invention. Watkins merely discloses a method for assigning color codes to stereo signals.

Applicant further submits that each of Sogawa, Freeman and Higuchi also fail to teach or suggest the above noted features, thus each one of these references fail to make up for the deficiencies found in Watkins.

To establish a *prima facie* case of Obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Applicant respectfully submits that the combination of cited references fail to teach or suggest each and every feature as set forth in the claimed invention.

Applicant respectfully submits that independent claim 10 allowable over Watkins and Higuchi for at least the reasons noted above.

As for each of the dependent claims not particularly discussed above, these claims are also allowable for at least the reasons set forth above regarding their corresponding independent claims, and/or for the further features claimed

therein.

Accordingly, withdrawal of the rejection of claims 2-6 and 10-11 under 35 U.S.C. §103(a) is respectfully requested.

#### Conclusion

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 to schedule a Personal Interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.

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Respectfully submitted,

By 

Charles Gorenstein  
Registration No.: 29,271  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Road  
Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicant